

SECTION 4. WATER FACILITIES AND PUMPING STATIONS:

- 4.1 **WELLS, STORAGE TANKS AND WATER PRODUCTION FACILITIES:** Wells, storage tanks, water production and pumping stations shall meet or exceed all applicable requirements of the Commonwealth of Virginia Department of Health, the American Water Works Association, and the National Fire Protection Association; and shall be submitted through the James City County Planning Department for JCSA review and approval. All water production facilities shall be dedicated to JCSA and shall be equipped with an approved alarm system, standby power supply and disinfection facilities.

Water production facilities shall be designed and constructed in accordance with the latest JCSA constructed facility in regards to operation, controls, SCADA (Supervisory Control and Data Acquisition), layout, construction materials, equipment, disinfection and other related appurtenances and the latest JCSA Standards and Specifications for Groundwater Wells and Water Production Facilities. The size of storage and production facilities shall be based on the needs of the development and as approved by JCSA. Water storage facilities shall consist of disinfection, peak demand and fire flow storage unless otherwise approved by JCSA.

- 4.2 **WASTEWATER PUMPING STATIONS:** Pumping Stations shall meet all applicable requirements of the Department of Environmental Quality, and shall be submitted through the James City County Planning Department for JCSA review and approval. Pumping Stations shall be designed in accordance with the VIRGINIA SEWERAGE REGULATIONS, and the JCSA "Standards and Specifications for Pump Stations," latest version. The size of the pumping station shall be based on the needs of the development and JCSA.

- 4.3 **OPERATIONS, MAINTENANCE AND REPAIR MANUALS:** Operation, maintenance and repair manuals shall be provided for all individual pieces of equipment and electrical systems. Provide four (4) copies of each manual bound in hardback binders or an approved equivalent by JCSA. One (1) complete manual shall be provided to JCSA for approval prior to system or equipment tests being performed. All revisions or comments from the system and equipment testing shall be incorporated into the final four (4) copies to be submitted to JCSA prior to project completion. The manual shall include the following information:

- A. On the exterior of the manual denote the following "OPERATION, MAINTENANCE AND REPAIR MANUAL", the name of the project, location of the building, and the name of the Contractor.
- B. The manual shall include the name, addresses, and telephone numbers of each subcontractor installing the equipment and systems and the name, address and phone numbers for the local representatives for each item of equipment and each system.
- C. The manual shall include a table of contents, with tab sheets placed before instructions covering the subject.
- D. The manual shall include, but not be limited to the following:
 - 1. A system layout showing circuits, devices, and controls

2. As-built wiring diagrams with the data to explain detailed operation, maintenance and repair for each component or system.
3. A control sequence describing the start up, operation and shutdown.
4. Detailed instructions on the function of each piece of equipment or system to include the start up, operation, repair and shutdown procedures.
5. Provide a detailed parts list for each piece of equipment or system including names, addresses and phone numbers of suppliers.
6. The manual shall be complete in all respects for all equipment, control, accessories and systems.
7. The manual shall be clearly and concisely written and shall be specifically prepared for makes, models and types of equipment and systems furnished.
8. General literature shall be modified or highlighted for the specific piece of equipment or system furnished.